

REMARKS

[0003] Applicant respectfully requests entry of the following remarks and reconsideration of the subject application. Additionally, Applicant respectfully requests entry of the amendments herein. The remarks and amendments should be entered under 37 CFR. § 1.116 as they are submitted with a Request for Continued Examination and the appropriate fee.

[0004] Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-20, 27, and 28 are presently pending. Applicant amends Claims 1, 12, and 27 herein. No claims are withdrawn, canceled, or added herein.

Formal Request for an Interview

[0005] If the Examiner's reply to this communication is anything other than allowance of all pending claims and all that remain are minor matters, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can discuss this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

[0006] Please contact me to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for me, I welcome your call as well. My contact information may be found on the last page of this response.

Claim Amendments

[0007] Without conceding the propriety of the rejections herein and in the interest of expediting prosecution, Applicant amends claims 1, 12, and 27 herein. Applicant amends these claims to clarify claimed features. Such amendments are made to expedite prosecution and more quickly identify allowable subject matter. Such amendments are merely intended to clarify the claimed features, and should not be construed as further limiting the claimed invention in response to the cited references.

[0008] Furthermore, amendments made herein are fully supported throughout the originally filed application including the originally filed claims and drawings. Applicant refers the Examiner specifically to at least the first full paragraph of page 7.

Substantive Matters

Claim Rejections under § 103

[0009] The Examiner rejects claims 1-20, 27, and 28 under § 103. For the reasons set forth below, the Examiner has not made a prima facie case showing that the rejected claims are obvious.

[0010] Accordingly, Applicant respectfully requests that the § 103 rejections be withdrawn and the case be passed along to issuance.

[0011] The Examiner's rejections are based upon the following references in combination:

- **Datta:** *Datta*, US Patent Application Publication No. 2003/0004998 (published January 2, 2003); and
- **Ims:** *Ims, et al.*, US Patent No. 7,177,900 (issued February 13, 2007).

Overview of the Application

[0012] The Application describes systems and methods for processing dynamic content, (Abstract).

Cited References

[0013] The Examiner cites Data as the primary reference in the obviousness-based rejections. The Examiner cites Ims as the secondary reference in the obviousness-based rejections.

Datta

[0014] Datta describes a system and method that can provide the ability to cache dynamic content at finer granularities outside a web site's infrastructure, (Summary of the Invention).

Ims

[0015] Ims describes methods, systems, computer program products, and methods of doing business by caching dynamic content fragments in a distributed cache and assembling requested content using these fragments.

Obviousness Rejections

Lack of *Prima Facie* Case of Obviousness (MPEP § 2142)

[0016] Applicant disagrees with the Examiner's obviousness rejections. Arguments presented herein point to various aspects of the record to demonstrate that not all of the criteria set forth for making a prima facie case have been met.

Based upon Datta and Ims

[0017] The Examiner rejects claims 1-20, 27 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Datta in view of Ims. Applicant respectfully traverses the rejection of these claims and asks the Examiner to withdraw the rejection of these claims.

Independent Claim 1

[0018] Without conceding the propriety of the combination of references, Applicant submits that the combination of Datta and Ims does not teach or suggest at least the following features as recited in this claim (with emphasis added):

- "sending, by the first computing device to a second computing device, ***the request and one or more identifiers*** associated with the one or more cached items, respectively"

[0019] In rejecting this claim, the Examiner states the following (Action, pp. 4-5):

Datta does not expressly teach forwarding a request along with an identifier to the cached data. Ims teaches distributed fragment caching and assembly comprising:

sending, by a first device, a request and an identifier associated with the cached item (column 8, line 42 to column 9, line 7, where the fragment cache/assembler invokes the application on the web server for creating web pages in response to requested content, also column 12, lines 23-50); and

receiving, by the first device from the second device, content based on the identifier, the identifier being usable by the second computing device to determine content that is not to be included in the generated content, the request being useable by the second computing device to determine content to be included in the generated content (column 8, line 42 to column 9, line 7, where the request determines the user-specific fragments for each page request as well as the static cacheable area (component C1). The identifier used to identify the content to be generated inherently identifies the content not to be generated, as that content is the content that is not expressly identified, also column 12, lines 23-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Datta's system with the fragment caching identifiers given by Ims. It would be beneficial in terms of speed and efficiency to process in the proxy server, as in Ims's system. This allows the cache server to request both static and dynamic content from a server, and further allows the cache server to cache fragments of the data, including the static content, which would allow the system to work more efficiently with less requests to the application server.

[0020] It can be seen from the portion of the rejection reproduced immediately above that the Examiner admits Datta does not teach "forwarding a

request along with an identifier to the cached data" and so relies upon teachings from Ims to cure this deficiency.

[0021] Ims however, does not cure this deficiency because Ims does not teach "sending... the request and one or more identifiers associated with the one or more cached items" as claimed.

[0022] The portion of Ims relied on from column 8, discloses that the "Fragment Cache Assembler" forwards a received request for an internet page on to "Origin" server 120; no identifier is described as being passed along. The portion of Ims relied on from column 12 discloses that the "Fragment Cache Assembler" sends a new request for "child" on to "Origin" server 120 based on processing step 930.

[0023] Applicant notes that figure 9 of Ims depicts "*Forward* request for "child" " at block 935 (emphasis added), however it is clear from the text describing the figure that the "cache/assembler" "sends a request for "child" to the origin server" (Col. 12, ll. 47-48, emphasis added), with the implication that it is a new request. Regardless, Ims does not teach that the variable "temp" is added to or otherwise sent to the Origin server 120 as asserted by the Examiner.

[0024] Col. 12 of Ims actually describes a method similar to one of the problems addressed by the claims. This problem is described on p. 3 beginning at line 18 through p. 4 line 8 of the instant application, which states the following:

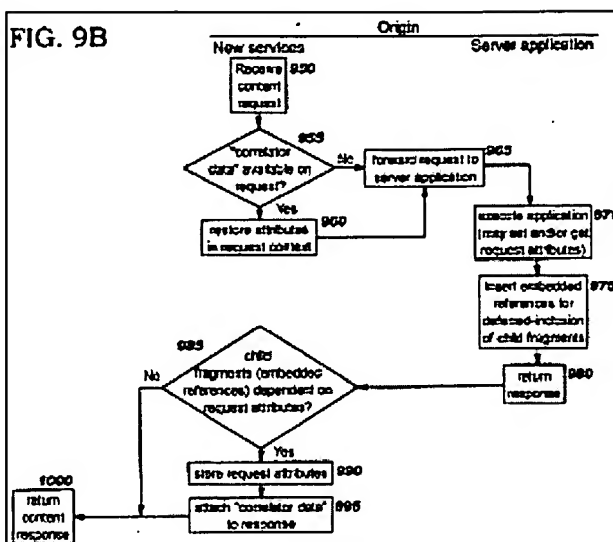
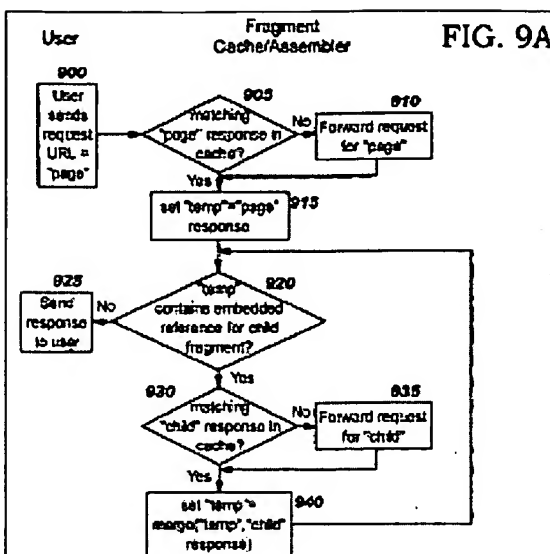
The system described herein is different from other dynamic content acceleration systems. For example, at least one of the other systems employs edge servers for caching fragments in a web page.

The web page must be programmed with directives to identify the cacheable fragments. So, the format of the web page is significantly limited. Also, after receiving a request for a web page, an edge server must request from a content server each fragment in the web page that is not cached. Thus, processing workflow and semantics of the original request must be disrupted and replaced with multiple requests, each for a particular fragment. This disruption of the processing workflow results in additional system complexity and renders sever-side caching mechanisms inoperative.

In contrast, the system and method described herein does not disrupt the original content processing workflow and semantics. Unlike the other systems, the described system adds additional information to a content request to facilitate proxy content caching while maintaining the original processing workflow.

[0025] And so, this claim differs from the cited references at least because they, even in combination, do not "send[]... the request and one or more identifiers associated with the one or more cached items" as claimed, and therefore do not provide the benefits of the claim; namely the avoidance of disrupted processing workflow.

[0026] In rebuttal to the forgoing, the Examiner asserts that the variable "temp" is added and sent to the origin server (Action p. 2). However, the "temp" variable is disclosed as being used solely by the Cache Assembler. This is made particularly obvious from a comparison of processing steps shown in figures 9A and 9B. Figure 9A shows processing done by the "Cache/Assembler"; Figure 9B shows the processing steps of the Origin server. In Figure 9B there is a notable lack of the variable "temp" used in processing step 940 of 9A as can be seen below:



[0027] As can be seen from the forgoing, Ims fails to suggest the claimed "sending... the request and an identifier associated with the cached item" and therefore fails to cure the deficiency existing in the teachings from Datta.

[0028] Therefore, the combination of Datta and Ims does not teach or suggest all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 2-11

[0029] These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable. It is axiomatic that any dependent claim, which depends from an allowable base claim, is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claim 12

[0030] Without conceding the propriety of the combination of references, Applicant submits that the combination of Datta and Ims does not teach or suggest at least the following features as recited in this claim (with emphasis added):

- "a proxy server configured to receive and process a request for content... the proxy server being further configured to **forward the request along with identifiers** associated with the cached items"
- a content server configured to receive and inspect the request from the proxy server and dynamically generate content specified in the request from the proxy server **based on the request and the identifiers** included with the request, and based on a determination made by the inspection and wherein, the dynamically generated content excludes content of the request that relates to the identifiers associated with the cached items, the dynamically generated content further including content of the request not excluded by the identifiers, and the dynamically generated content having information for the proxy server to combine the dynamically generated content with the cached items for processing the request and wherein the content server is further configured to send the generated content to the proxy server

[0031] In rejecting this claim, the Examiner states the following (Action, pp. 6-7):

Datta does not expressly teach forwarding a request along with an identifier to the cached data. Ims teaches distributed fragment caching and assembly comprising:

a proxy server configured to send a request and an identifier associated with an item (column 8, line 42 to column 9, line 7, where the fragment cache/assembler invokes the application on the web server for creating web pages in response to requested content, also column 12, lines 23-50); and
a content server configured to dynamically generate content specified in the request based on the identifier, the identifier being usable by the second computing device to determine content that is not to be included in the generated content, the request being useable by the second computing device to determine content to be included in the generated content (column 8, line 42 to column 9, line 7, where the request determines the user-specific fragments for each page request as well as the static cacheable area (component C1). The identifier used to identify the content to be generated inherently identifies the content not to be generated, as that content is the content that is not expressly identified, also column 12, lines 23-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Datta's system with the fragment caching identifiers given by Ims. It would be beneficial in terms of speed and efficiency to process in the proxy server, as in Ims's system. This allows the cache server to request both static and dynamic content from a server, and further allows the cache server to cache fragments of the data, including the static content, which would allow the system to work more efficiently with less requests to the application server.

[0032] It can be seen from the portion of the rejection reproduced immediately above that the Examiner admits Datta does not teach "forwarding a request along with an identifier to the cached data" and so relies upon teachings from Ims to cure this deficiency.

[0033] Applicant reiterates arguments made for independent claim 1; namely, that Ims does not cure this deficiency from Datta because Ims does not teach the claimed "forward[ing] the request along with identifiers".

[0034] And so, as established previously, the combination of Datta and Ims does not teach or suggest all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

[0035] In addition to the forgoing reiterated arguments, Applicant submits that the combination of Datta and Ims further fails to teach or suggest the claimed "a content server configured to receive and inspect the request from the proxy server and dynamically generate content specified in the request from the proxy server based on the request and the identifiers".

[0036] Since, as established with regard to claim 1, Ims does not teach or suggest passing an identifier with a received request, any such subsequent action disclosed in the reference, axiomatically, can not be based on "the request and the identifiers" as claimed in independent claim 12.

[0037] For the forgoing cumulating reasons, Applicant submits the Examiner has not presented a prima facie case of obviousness for independent claim 12 because, as has been shown, the combination of references fails to fairly teach or suggest all of the elements and features of the claim. Accordingly, Applicant respectfully requests the Examiner withdraw the rejection of this claim.

Dependent Claims 13-20

[0038] These claims ultimately depend upon independent claim 12. As discussed above, claim 12 is allowable. It is axiomatic that any dependent claim, which depends from an allowable base claim, is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claim 27

[0039] Without again conceding the propriety of the combination of references, Applicant submits that the combination of Datta and Ims does not teach or suggest at least the following features as recited in this claim (with emphasis added):

- "a proxy server configured to:
 - process a request for content, the proxy server having first items identified in the request for content that are cached and second items identified in the request for content that are not cached,
 - generate a cache key for each of the first items that are cached,
 - add each generated cache key to the request for content, and
 - forward the request including the added cache keys'***
- a content server configured to:
 - dynamically generate content specified in the request from the proxy server ***based on the request and each generated cache key included with the request***, the dynamically generated content excluding content of the request that relates to the generated cache

keys included with the request, and the dynamically generated content including content of the request not excluded by the generated cache keys

[0040] In rejecting this claim, the Examiner states the following (Action, pp. 6-7):

Datta does not expressly teach forwarding a request along with an identifier to the cached data. Ims teaches distributed fragment caching and assembly comprising:

a proxy server configured to send a request and an identifier associated with an item (column 8, line 42 to column 9, line 7, where the fragment cache/assembler invokes the application on the web server for creating web pages in response to requested content, also column 12, lines 23-50); and

a content server configured to dynamically generate content specified in the request based on the identifier, the identifier being usable by the second computing device to determine content that is not to be included in the generated content, the request being useable by the second computing device to determine content to be included in the generated content (column 8, line 42 to column 9, line 7, where the request determines the user-specific fragments for each page request as well as the static cacheable area (component C1). The identifier used to identify the content to be generated inherently identifies the content not to be generated, as that content is the content that is not expressly identified, also column 12, lines 23-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Datta's system with the fragment caching identifiers given by Ims. It would be beneficial in terms of speed and efficiency to process in the proxy server, as in Ims's system. This allows the cache server to request both static and dynamic content from a server, and further allows the cache server to cache fragments of the data, including the static content, which would allow the system to work more efficiently with less requests to the application server.

[0041] As can be seen from the portion of the rejection reproduced immediately above, the Examiner admits Datta does not teach "forward the request including the added cache keys" and so relies upon teachings from Ims to cure this deficiency.

[0042] Applicant reiterates arguments made for independent claim 1; namely, that Ims does not cure this deficiency from Datta because Ims does not teach the claimed "forward the request including the added cache keys".

[0043] And so, as established previously, the combination of Datta and Ims does not teach or suggest all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

[0044] In addition to the forgoing reiterated arguments, Applicant submits that the combination of Datta and Ims further fails to teach or suggest the claimed "a content server configured to... dynamically generate content specified in the request from the proxy server based on the request and each generated cache key included with the request".

[0045] Since, as noted with regard to claim 1, Ims does not teach or suggest passing an identifier (such as a cache key) with a received request, any such subsequent action disclosed in the reference, axiomatically, can not be based on "the request and each generated cache key included with the request" as claimed in independent claim 27.

[0046] For the forgoing cumulating reasons, Applicant submits the Examiner has not presented a prima facie case of obviousness for independent

claim 27 because, as has been shown the combination of references fails to fairly teach or suggest all of the elements and features of the claim. Accordingly, Applicant respectfully requests the Examiner withdraw the rejection of this claim.

[0047] Furthermore, Applicant amends independent claim 27 herein to recite the following:

- determine whether any portion of the dynamically generated content is cacheable,
- determine conditions that are appropriate for the portion of the dynamically generated content to be cached,
- include metadata with the dynamically generated content to identify the portion of the dynamically generated content that is cacheable content, and
- send the dynamically generated content with the metadata to the proxy server

[0048] Applicant submits that cited references Datta and Ims do not teach or suggest any of these features as amended herein. Accordingly, Applicant requests the examiner withdraw the rejection of this claim.

Dependent Claim 28

[0049] This claim ultimately depends upon independent claim 27. As discussed above, claim 27 is allowable. It is axiomatic that any dependent claim,

which depends from an allowable base claim, is also allowable. Additionally, this claim may also be allowable for additional independent reasons.

Dependent Claims

[0050] In addition to its own merits, each dependent claim is allowable for at least the same reasons that its base claim is allowable. Applicant requests that the Examiner withdraw the rejection of each dependent claim where its base claim is allowable.

Conclusion

[0051] All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action.** Please call or email me at your convenience.

Respectfully Submitted,

Lee & Hayes, PLLC
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/Randall T. Palmer 61440/

Dated: 04/08/09

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